

To Stay at Port or to Go to Sea: Are Clinical Clerkships a Double-Edged Sword During the COVID-19 Pandemic? Where Do We Go From Here?

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The ongoing pandemic has changed the way medicine is taught and learned. The unexpected challenges of the spread of SARS-CoV-2 worldwide have forced our educators to rethink in a rather narrow window of time the organization of medical education all around the globe. In many countries, clinical clerkships have been cancelled and medical students' access to university hospitals has been restricted. Lectures have been replaced by online courses and, in many instances, case presentations have replaced classical rotations in the hospital. Although it is not difficult to understand why these measures were put into practice, one is still left wondering: are clinical clerkships dispensable in the training of a future physician? Also, to what extent has the SARS-CoV-2 pandemic affected the work of residents and young researchers? In the current and previous issue of the *International Journal of Medical Students*, many of these topics are tackled in the *Experience* articles that we decided to publish with perspectives from countries including Italy,^{1,2} China/Zimbabwe,³ Spain,⁴ the United States,⁵⁻¹⁰ Mexico,^{11,12} India,¹³⁻¹⁸ Pakistan,¹⁹ Vietnam,²⁰ Saudi Arabia,²¹ Canada,^{22,23} Thailand,²⁴ Ecuador,²⁵ Nigeria,²⁶ Democratic Republic of Congo,^{27,28} Ireland,^{29,30} the United Kingdom,^{31,32} South Africa,³³ Jamaica,³⁴ and Greece.^{35,36}

Sir William Osler's quote "*he who studies medicine without books sails an uncharted sea, but he who studies medicine without patients does not go to sea at all*" is the theme of the latest issues of the *International Journal of Medical Students*. As a rhetorical question has arisen in the minds of all students in medicine worldwide: can we actually learn medicine without direct interaction with real patients? When we were younger and progressing through medical school, we sometimes had the delusion that digesting as much medical information as possible could be comparable to the knowledge which we accumulated during our hospital rotations. We were both right and wrong simultaneously. In certain instances, our individual reading enabled us to better grasp a subject and perhaps to establish a correct diagnosis when faced with a patient. However, much of medicine remains an apprenticeship and the day-to-day practicalities of clinical work cannot be effectively taught or learned through the same modalities. The transition from medical student to resident physician is a rather complicated task. One quickly discovers that taking care of a patient does not only require you to establish a correct diagnosis and an appropriate treatment plan, but

Just a couple of days ago one of the Editors was asked by a colleague in the internal medicine ward to visit a patient with influenza pneumonia (unsurprisingly, flu-like symptoms in the summer can actually reflect a diagnosis of influenza and not necessarily COVID-19). The patient also has new thrombocytopenia and no signs of bleeding. What was the origin of the hematological finding? Could it be secondary to the viral infection? Could it be immune thrombocytopenia? Or does this sudden decrease of the platelet count hide a more severe diagnosis, i.e. cancer?³⁷⁻⁴² It is clear that the actual presentations of patients we see every day are far from the "textbook cases" we were versed on during our undergraduate training. Although the cancellation of clinical clerkships was decided in order to prevent the spread of SARS-CoV-2, as well as to reduce the unnecessary use of limited personal protective equipment, we wonder how our future colleagues will adapt to these changes and what will be the sequelae of these decisions. Medical educators are currently struggling between their duty to protect their students from unnecessary harms and their duty to educate the clinicians of tomorrow; to stay at port or to go to sea.

Medical academics will require rapid innovative thinking and continued determination to identify potential solutions to address unavoidable training deficiencies which are likely to arise as a result of these difficult times, since the lack of clinical clerkships will impact the education of medical students in a range of foreseeable and unforeseeable manners. In line with this, we believe that it has never been so important to provide a platform to present the unexpected ways in which the lives and training of medical students, residents, senior physicians, members of academia and researchers worldwide have all been affected by the SARS-CoV-2 pandemic.⁴³

In this issue, we are sharing not only the experiences of colleagues from all over the world, but the results of a survey to identify perceptions of how the current lockdowns have affected students' learning process,⁴⁴ important reviews on COVID-19,⁴⁵ including the potential effects of probiotics in the disease,⁴⁶ and a case report of a patient with gastrointestinal symptoms as the main manifestation.⁴⁷ This last article kept us wondering about a public health problem that is yet to come if it is proven that the virus can spread in stools, especially for those regions of the world highly affected by disparities in sanitation.⁴⁸ As always, we are also about the effects of schoolbags on children,⁴⁹ prognostic factors for mortality of rocky mountain spotted fever,⁵⁰ the association of acute liver failure with heat stroke,⁵¹ gene variants in major depressive disorder in patients with childhood trauma,⁵² novel biomarkers in Alzheimer's disease,⁵³ and the description of artifacts in electrocardiograms due to neurostimulators.⁵⁴

on the phone to request blood tests, scheduling the patient for imaging or verifying whether the medication you prescribed is available in the hospital pharmacy. With the restriction or cessation of clinical rotations, the outgoing classes of 2021 may feel short-changed on the in-between learning from which their predecessors unwittingly benefited.

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Our missions of spreading science does not end with the publication of an issue.⁴³ Systemic racism continues to prevail in the face of the blinding spotlights which have been drawn upon it in the recent months. In an *Experience* article in this issue, Pak and colleagues explore the origins of SARS-CoV-2 and draw conclusions of the detrimental consequences intended by the use of xenophobic terms,⁹ which are banned from the *International Journal of Medical Students*.

In these difficult times where science has been put on test by the general public and especially politicians, we close this *Editorial* with a

call for decisions makers to listen to science. No vaccines should be administered without the proper research.⁵⁵ We cannot go back before the Nuremberg Code (1947). Even governors and people in power should follow ethical principles when dealing with human lives.

The *Journal* remains a global forum for medical trainees of all nations. As such, we will continue to play a central role in promoting accurate and respectful scientific dialogue, in an effort to combat misinformation and xenophobic rhetoric.

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